

Seventeenth Annual

**Symposium
on Computer
Applications
in Medical Care**

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Seventeenth Annual

*Patient-Centered
Computing*

Symposium on Computer Applications in Medical Care

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Preface

The Seventeenth Symposium on Computer Applications in Medical Care has as its theme "Patient-Centered Computing." I chose this theme not only to complement past themes of "evaluation"¹ and "collaboration"² but to focus our efforts in the medical informatics community on the only reason to pursue our work, the patient.

At a recent conference health professional workstations, the keynote speaker asked how many in the audience were 1) computer developers, 2) health administrators, or 3) clinicians. I thought, "How many in the audience are patients?" The answer is we all are (or should be from my vantage point as a primary care internist).

While I take no credit for the idea of patient-centered computing, in that information systems have had patient-centered architecture for over two decades³⁻¹² and programs for patient-computer dialogue were first reported nearly three decades ago,^{13,14} I thought I was the first to apply this noun-phrase to "computing," although the term has been used for decades in nursing¹⁵ and more recently to describe models of care. A quick search of the MEDLINE database¹⁶⁻¹⁹ quickly deflated my claim to originality.^{20,21} With the publishing of these proceeding seven new articles enter the MEDLINE database with the phrase "patient-centered computing" in their titles.

The patient is probably the least utilized resource in the health care process,²² but perhaps the patient is our best ally as we seek to sculpt the health information landscape. Only the patient can decide when to seek medical attention. Only the patient can decide whether to take medications.²³ Only the patient can provide information of a personal and confidential nature that is essential for good patient care.²⁴ We must build

information architecture with the patient as the atom rather than a billing episode. We must design functions for these systems that supports and advances patient care. Our goals, therefore, should be to engage patients, clinicians, and computer systems in a three-way dialogue that promotes better and more efficient health care.

In keeping with the symposium theme, I have organized the proceedings from a patient's perspective. First, papers about patient access to information systems, then papers about computer-based patient records, followed papers about information infrastructure, and finally papers about modeling and technology. However, one can only push a theme so far and I apologize for misplacing those papers that did not fit into the categories I chose as section headings.

This year the superb support staff in the AMIA office processed over 500 submissions. The 162 scientific papers in this proceedings report more studies about information systems in patient care, provide more evaluation data, and are better referenced to prior years. I would specifically like to thank Denise Hercih, Rene Fluette, Donna Barber, and Nina Runstein for helping me during this past hectic year. I would also like to thank my program committee who spent countless hours helping to solicit papers, panels, tutorials, and workshops, to assign reviewers, to judge reviews, to write detailed comments to authors, and to sculpt the symposium. Their help and encouraging e-mail comments kept my spirits high. This year, we assigned all papers to be reviewed by three reviewers. A computer algorithm matched one reviewer for each paper based upon key words provided any AMIA member who returned a key word form. The reviews by first-time reviewers were extraordinary. The program committee and I thank both these first-time reviewers and

those who continue to provide the detailed comments to authors that allows our conference to achieve a high level of quality. Of course, my pledge not to embarrass publicly the AMIA executive director aside, I could not have completed any of the tasks of the program chair without the untiring support of Gail Mutnik. She always found a way to make ideas happen. Her dedication to the field of medical informatics and AMIA can clearly be seen in the quality of the symposium. Finally I must

thank my wife, Donna, and daughters, Rachel and Julie, who never signed up to be SCAMC program chair. While we all become patients, we are first sons, husbands, and fathers. I thank my family for being there for me.

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Patient Access to Information

Section II

Computer-Based Patient Records: Access, Acceptance, and Concepts

Section III

Computer-Based Patient Records: Applications

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"Carebase: Migration of the Regentstief Clinical Information System"

Carebase was implemented at Thomason General Hospital-Texas Tech Regional Academic Health Center, El Paso, Texas, over a ten month period starting in July, 1992. The system, utilizing native RCIS software, was interfaced to existing registration, pharmacy, laboratory, transcription, radiology and nursing applications. Additionally, Carebase captures data input from various clinical sites.

Thomason General Hospital is a publicly funded 303 bed acute care hospital which admits approximately 24,000 patients/year. It is a level one trauma center and its emergency department sees 60,000 patients annually. Ambulatory care is provided in the Texas Tech Regional Academic Health Center Outpatient Clinics, a multispecialty organization with over 150 physicians and 150,000 outpatient visits per year. Community primary care clinics also provide care to a large number of patients and use the hospital facilities for laboratory, radiologic and ancillary services. Carebase serves as the primary campus clinical information system and provides access to clinical data in the hospital, the multispecialty clinic and physician offices via a fiberoptic campus network. The system allows for remote access as well and provides clinical information support to primary care and rural health sites and home health personnel via this capability. Carebase also provides access to a variety of clinical support information services such as Micromedics, full-text biomedical journals and bibliographic retrieval databases via an integrated CD-ROM infoserver.

Currently, efforts are proceeding to interface voice to text applications, incorporate graphical document and image data and install decision support components of the system.

Further development efforts on the campus involve the use of Carebase as a foundation for a community health care enterprise clinical information system available to local and regional health care providers.

We seek to demonstrate the production system and show its use as a campus-wide clinical information system. Importantly, we will show that a well developed clinical information system can be successfully implemented in a site foreign to its development, that it can be interfaced to existing foreign applications and retain the functionality and robustness of the native system.

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